

8880 INTERCHANGE DRIVE HOUSTON, TX 77054 (713) 660-0901

## Trace Analysis, Inc.

### **Certificate of Analysis Number:**

#### 08050453

Report To:

Trace Analysis, Inc.

Trace Analysis, Inc.

6701 Aberdeen Avenue

Site:

Lubbock, TX

Liz Givens

Site Address:

Project Name:

PO Number:

Lubbock

Suite 9

State:

**Texas** 

79424-

State Cert. No.:

T104704205-06-TX

ph: (806) 794-1296

fax:

**Date Reported:** 5/12/2008

This Report Contains A Total Of 8 Pages

Excluding This Page, Chain Of Custody

And

Any Attachments



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# Case Narrative for: Trace Analysis, Inc.

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TX State: Texas

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ph: (806) 794-1296 fax: <u>Date Reported:</u> 5/12/2008

Results are reported on a wet weight basis unless dry-weight correction is denoted in the units field on the analytical report (" mg\kg-dry " or " ug\kg-dry ").

Matrix spike (MS) and matrix spike duplicate (MSD) samples are chosen and tested at random from an analytical batch of "like" matrix to check for possible matrix effect. The MS and MSD will provide site specific matrix data only for those samples which are spiked by the laboratory. Since the MS and MSD are chosen at random from an analytical batch, the sample chosen for spike purposes may or may not have been a sample submitted in this sample delivery group. The validity of the analytical procedures for which data is reported in this analytical report is determined by the Laboratory Control Sample (LCS) and the Method Blank (MB). The Laboratory Control Sample (LCS) and the Method Blank (MB) are processed with the samples and the MS/MSD to ensure method criteria are achieved throughout the entire analytical process.

Some of the percent recoveries and RPD's on the QC report for the MS/MSD may be different than the calculated recoveries and RPD's using the sample result and the MS/MSD results that appear on the report because, the actual raw result is used to perform the calculations for percent recovery and RPD.

Any other exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control summary page(s).

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above Certificate of Analysis Number.

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

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Lubbock, TX

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Report To: Trace Analysis, Inc.

Liz Givens

6701 Aberdeen Avenue

Suite 9 Lubbock

TX

79424-

Fax To:

ph: (806) 794-1296 fax: (806) 794-1298

PO Number:

State: Texas

Project Name:

Site Address:

Site:

State Cert. No.: T104704205-06-TX

Date Reported: 5/12/2008

| Client Sample ID | Lab Sample ID | Matrix | Date Collected        | Date Received        | COC ID | HOLD |
|------------------|---------------|--------|-----------------------|----------------------|--------|------|
| 157765           | 08050453-01   | Water  | 4/22/2008 11:25:00 AM | 5/7/2008 11:00:00 AM |        |      |
| 157677           | 08050453-02   | Water  | 4/22/2008 11:25:00 AM | 5/7/2008 11:00:00 AM |        |      |

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5/14/2008

Date

Erica Cardenas Project Manager

> Richard R. Reed Laboratory Director

Ted Yen
Quality Assurance Officer



8880 INTERCHANGE DRIVE HOUSTON, TX 77054 (713) 660-0901

Client Sample ID: 157765 Collected: 04/22/2008 11:25 SPL Sample ID: 08050453-01

Site: Lubbock, TX

| Analyses/Method          | Result | QUAL | Rep.Limit | Di  | il. Factor | Date Ana | lyzed Analyst | Seq. #  |
|--------------------------|--------|------|-----------|-----|------------|----------|---------------|---------|
| TOTAL ORGANIC CARBON (NP | OC)    |      |           | MCL |            | E415.1   | Units: mg/L   |         |
| Organic Carbon, Total    | 72.3   |      | 20        |     | 2          | 05/09/08 | 10:00 ESK     | 4427344 |

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B/V - Analyte detected in the associated Method Blank

\* - Surrogate Recovery Outside Advisable QC Limits

J - Estimated Value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

MI - Matrix Interference

08050453 Page 3 5/14/2008 3:13:15 PM



8880 INTERCHANGE DRIVE HOUSTON, TX 77054 (713) 660-0901

Client Sample ID: 157677 Collected: 04/22/2008 11:25 SPL Sample ID: 08050453-02

Site: Lubbock, TX

| Analyses/Method           | Result | QUAL | Rep.Limit | Dil. F | acto | r Date Ana | lyzed   | Analyst  | Seq. #  |
|---------------------------|--------|------|-----------|--------|------|------------|---------|----------|---------|
| TOTAL ORGANIC CARBON (NPO | C)     |      |           | MCL    |      | E415.1     | Uni     | ts: mg/L |         |
| Organic Carbon, Total     | 70     |      | 20        |        | 2    | 05/09/08   | 10:00 I | ESK      | 4427345 |

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B/V - Analyte detected in the associated Method Blank

\* - Surrogate Recovery Outside Advisable QC Limits

J - Estimated Value between MDL and PQL

E - Estimated Value exceeds calibration curve

TNTC - Too numerous to count

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution

MI - Matrix Interference

08050453 Page 4 5/14/2008 3:13:15 PM

# **Quality Control Documentation**



8880 INTERCHANGE DRIVE HOUSTON, TX 77054 (713) 660-0901

# Trace Analysis, Inc. Trace Analysis, Inc.

Analysis: Total Organic Carbon (NPOC) WorkOrder: 08050453

Method: E415.1 Lab Batch ID: R236885

Method Blank

Samples in Analytical Batch:

Lab Sample ID Client Sample ID

08050453-01A 157765 08050453-02A 157677

| Analyte              | Result | Rep Limit |
|----------------------|--------|-----------|
| Organic Carbon,Total | ND     | 10        |

#### **Laboratory Control Sample (LCS)**

RunID: TOC2\_080509C-4427340 Units: mg/L Analysis Date: 05/09/2008 10:00 Analyst: ESK

| Analyte              | Spike<br>Added | Result | Percent<br>Recovery | Lower<br>Limit | Upper<br>Limit |
|----------------------|----------------|--------|---------------------|----------------|----------------|
| Organic Carbon,Total | 40.00          | 43.09  | 107.7               | 84             | 116            |

#### Matrix Spike (MS) / Matrix Spike Duplicate (MSD)

Sample Spiked: 08050632-01

RunID: TOC2\_080509C-4427356 Units: mg/L Analysis Date: 05/09/2008 10:00 Analyst: ESK

| Analyte              | Sample<br>Result | MS<br>Spike<br>Added | MS<br>Result | MS %<br>Recovery | MSD<br>Spike<br>Added | MSD<br>Result | MSD %<br>Recovery | RPD    | RPD<br>Limit | Low<br>Limit | High<br>Limit |
|----------------------|------------------|----------------------|--------------|------------------|-----------------------|---------------|-------------------|--------|--------------|--------------|---------------|
| Organic Carbon,Total | ND               | 20                   | 28.46        | 96.14            | 20                    | 28.57         | 96.69             | 0.3858 | 20           | 73           | 125           |

Qualifiers: ND/U - Not Detected at the Reporting Limit

MI - Matrix Interference

B/V - Analyte detected in the associated Method Blank

D - Recovery Unreportable due to Dilution

J - Estimated value between MDL and PQL

\* - Recovery Outside Advisable QC Limits

E - Estimated Value exceeds calibration curve

N/C - Not Calculated - Sample concentration is greater than 4 times the amount of spike added. Control limits do not apply.

TNTC - Too numerous to count

08050453 Page 6

# Sample Receipt Checklist And Chain of Custody



8880 INTERCHANGE DRIVE HOUSTON, TX 77054 (713) 660-0901

## Sample Receipt Checklist

| Workorder:                | 08050453                                     |                | Received By:  | AE                |  |
|---------------------------|--|----------------|---------------|-------------------|--|
| Date and Time Received    | d: 5/7/2008 11:00:00 AM                      |                | Carrier name: | Courier           |  |
| Temperature:              | 4.5°C  |                | Chilled by:   | Water Ice         |  |
| 1. Shipping containe      | r/cooler in good condition?                  | Yes 🔽          | No 🗆          | Not Present       |  |
| 2. Custody seals inta     | act on shippping container/cooler?           | Yes 🔽          | No 🗆          | Not Present       |  |
| 3. Custody seals inta     | act on sample bottles?                       | Yes            | No 🗆          | Not Present 🗹     |  |
| 4. Chain of custody p     | present?                                     | Yes 🗸          | No 🗆          |                   |  |
| 5. Chain of custody s     | signed when relinquished and received?       | Yes 🔽          | No 🗆          |                   |  |
| 6. Chain of custody a     | agrees with sample labels?<br>led as 157767. | Yes            | No 🗹          |                   |  |
| 7. Samples in proper      | container/bottle?                            | Yes 🗸          | No 🗌          |                   |  |
| 8. Sample containers      | s intact?                                    | Yes 🔽          | No 🗆          |                   |  |
| 9. Sufficient sample      | volume for indicated test?                   | Yes 🗸          | No 🗌          |                   |  |
| 10. All samples receiv    | ed within holding time?                      | Yes 🔽          | No 🗆          |                   |  |
| 11. Container/Temp B      | lank temperature in compliance?              | Yes 🗹          | No 🗆          |                   |  |
| 12. Water - VOA vials     | have zero headspace?                         | Yes 🗸          | No U          | Vials Not Present |  |
| 13. Water - Preservation  | on checked upon receipt (except VOA*)?       | Yes            | No 🗆          | Not Applicable    |  |
| *VOA Preservation         | n Checked After Sample Analysis              |                |               |                   |  |
| SPL Represen              | tative: Elder, Allen                         | Contact Date & | Time:         |                   |  |
| Client Name Cont          | acted: 5/8/08                                |                |               |                   |  |
| Non Conformance<br>Issues |  |                |               |                   |  |
| Client Instructions       | Use sample ID on sample Label as per Liz.    |                |               |                   |  |

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# TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avonuc, 6, 4d 9 Lubbrick, Texas 79424 Tel (800) 794-1293 Fax (806) 794-1298 1 7800) 378-1298

5002 Basin Street, Side A1 Midland, Texas 79703 Tel (402) 659-6391 Fax (432) 689-6313 200 East Sunset Rd. Suns c El Paso, Texas 79922 Tel (616) 636-3423 Fax (516) 585-4944 1 (888) 588 3443

590ê Cemp Bowe Rivd West, St. te 187 Ft. Worth, Texas 76116 Tel (817) 201-5260 Fax (817) 560-4336

|  | t, City, Zip)               |          | Company Name: Phone #: |                 |       |  |          |          |          |                   |                   |             |         |                   |                 |              |  |               |                |   | A                  |               |               |                         |                            |                  |              | _I &          | ٠. ١  |                |        |             |        |
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| Contact Person:                                      |                             | <u> </u> |                        |                 | T     | *                                      | E-n      | ail:     |          |                   |                   |             |         |                   | <br> <br>       |              | iS   |               |                | 7.8500.7<br>1.56200.7                   |                    |               | !             |                         | .                          |                  |              | •             |       |                | :      | l ag        |        |
| nvoice to:<br>If different from above                |                             | dr.      |                        | A               | /<br> |  |          | en       |          |                   |                   |             |         | •                 |                 | 정:           | 일<br>[일  |               | 11             | 동[16<br>5.18                            |                    |               |               |                         |                            |                  |              |               |       | İ              | İ      | orr stai    |        |
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| ias i  | FIELD CODE                  |          | # CONTAINERS           | Volume / Amount | WATER | AIR -                                  | SLUDGE   | HCI      | FINO3    | H,SO <sub>4</sub> | NaoH              | NONE        | DATE    |                   | E E             | B021         | BTEX 8021B / 602 / 6280B / 624<br>TPH 416.1 / TX1005 / TX1005 Ext(C35) | TPH 80 15 GRO |                | Total Malas Ag.<br>TCLP Metals.         | TCLP Volatiles     | TCLP Sam: Vol | 1CLP Pastiada | RCI<br>GC/MS Vol. 82608 | GC/MS Semi Vol             | Posticides 5051A | 800 TSS, pl. | Moisture Conf | 196   |                |        | Turn Arcund |        |
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| Relinquished by:  Donda Uaul Submittel of samples of | Company:<br>Troci<br>Lupper | Date:    | 4                      | me:             | Rece  | 47                                     |          | <u></u>  | ==       | 7 <i>(</i> t      |                   | Date: 5/2/  | Time    | :<br>(200         | Tem<br>)        | <b>≀p</b> °¢ | :  |               | P.C.           |   |                    |               | <br>آ         | -<br>- c                | RRP R<br>heck II<br>mits A | Зре              | cial F       | Report        | 4. Ye | 2              |        |             |        |